

DESCRIPTION

Source Chinese Hamster Ovary cell line, CHO-derived
Arg25-Met233, with a C-terminal 6x-His tag
Accession # P15328

N-terminal Sequence Analysis Arg25

Predicted Molecular Mass 25.4 kDa

SPECIFICATIONS

SDS-PAGE 30-40 kDa, reducing conditions

Activity Measured by its binding ability in a functional ELISA.
When Folic Acid-Bovine Serum Albumin is coated at 5 µg/mL (100 µL/well), the concentration of rhFOLR-1 that produces 50% of the optimal binding response is found to be approximately 0.4 -1.6 nM.

Endotoxin Level <1.0 EU per 1 µg of the protein by the LAL method.

Purity >95%, by SDS-PAGE under reducing conditions and visualized by silver stain.

Formulation Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 100 µg/mL in PBS.

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Folate Receptor 1 (FOLR1), also known as Folate Receptor alpha and Folate Binding Protein (FBP), is a 37 - 42 kDa protein that mediates the cellular uptake of folic acid and reduced folates. Dietary folates are required for many key metabolic processes including nucleotide and methionine synthesis, the interconversion of glycine and serine, and histidine breakdown (1, 2). Mature FOLR1 is an N-glycosylated protein that is anchored to the cell surface by a GPI linkage (3 - 6). Human FOLR1 shares 83% amino acid sequence identity with mouse and rat FOLR1. FOLR1 is predominantly expressed on epithelial cells and is dramatically upregulated on many carcinomas (7, 8). It is critically required during early embryogenesis as shown in knockout mice which die *in utero* with gross morphological defects (9). FOLR1 is internalized to the endosomal system where it dissociates from its ligand before recycling to the cell surface (6, 10). A soluble form of FOLR1 can be proteolytically shed from the cell surface into the serum and breast milk (11).

References:

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